PUGET SOUND AIR POLLUTION CONTROL AGENCY

ENGINEERING DIVISION
110 Union Street, Suite 500 ▪ Seattle, WA 98101-2038
Telephone: (206) 689-4052

Notice of Construction and Application for Approval

FORM P SIDE 1

Be sure to complete items 39, 40, 41, & 43 before submitting Form P.

(AGENCY USE ONLY)
DATE _____ N/C NUMBER _____
REG. NO. _____ VAR. NO. _____
SIC. NO. _____ COS. NO. _____
GRID NO. _____ UTM _____

1. TYPE OF BUILDING (Check) ○ New ○ Existing
2. STATUS OF EQUIPMENT (Check) ○ New ○ Existing ○ Altered ○ Relocation
7. APPLICANT: Same
3. COMPANY (OR OWNER) NAME: Ash Grove Cement Company
8. APPLICANT ADDRESS: Same
4. COMPANY (OR OWNER) MAILING ADDRESS: 3801 E. Marginal Way So., Seattle 98134
9. INSTALLATION ADDRESS
5. NATURE OF BUSINESS: Portland Cement Mfg.
10. TYPE OF PROCESS: Whole tire feed system, Tire derived fuel

EQUIPMENT (ENTER ONLY NEW EQUIPMENT OR CHANGES. ENTER NUMBER OF UNITS OF EQUIPMENT IN COLUMN 'NO. OF UNITS.' COMPLETE FORM 'S' FOR EACH ENTRY.)

11. NO. OF UNITS	SPACE HEATERS OR BOILERS (Complete Form S-A)	14. NO. OF UNITS	OVENS	15. NO. OF UNITS	MECHANICAL EQUIP.	16. NO. OF UNITS	MELTING FURNACES
(a)		(a)	CORE BAKING OVEN	(a)	AREAS	(a)	POT
12. NO. OF UNITS	INCINERATORS (Complete Form S-B)	(b)	PAINT BAKING	(b)	BULK CONVEYOR	(b)	REVERBERATORY
		(c)	PLASTIC CURING	(c)	CLASSIFIER	(c)	ELECTRIC INDUC/RESIST
(a)		(d)	LITHO COATING OVEN	(d)	STORAGE BIN	(d)	CRUCIBLE
13. NO. OF UNITS	OTHER SYSTEMS	(e)	DRYER	(e)	BAGGING	(e)	CUPOLA
		(f)	ROASTER	(f)	OUTSIDE BULK STORAGE	(f)	ELECTRIC ARC
(a)	DEGREASING, SOLVENT	(g)	KILN	(g)	LOADING OR UNLOADING	(g)	SWEAT
(b)	ABRASIVE BLASTING	(h)	HEAT-TREATING	(h)	BATCHING	(h)	OTHER METALLIC
(c)	OTHER — SYSTEM	(i)	OTHER	(i)	MIXER (SOLIOS)	(i)	GLASS
(d)		(j)		(j) X	OTHER Whole tire Feed System	(j)	OTHER NON METALLIC

17. NO. OF UNITS	GENERAL OPER. EQUIP.	17. NO. OF UNITS	GENERAL OPER. EQUIP.	17. NO. OF UNITS	GENERAL OPER. EQUIP.	18. NO. OF UNITS	OTHER EQUIPMENT
(a)	CHEMICAL MILLING	(f)	GALVANIZING	(k)	ASPHALT BLOWING	(a)	SPRAY PAINTING GUN
(b)	PLATING	(g)	IMPREGNATING	(l)	CHEMICAL COATING	(b)	SPRAY BOOTH OR ROOM
(c)	DIGESTER	(h)	MIXING OR FORMULATING	(m)	COFFEE ROASTER	(c)	FLOW COATING
(d)	DRY CLEANING	(i)	REACTOR	(n)	SAWS & PLANERS	(d)	FIBERGLASSING
(e)	FORMING OR MOLDING	(j)	STILL	(o)	STORAGE TANK	(e)	OTHER

CONTROL DEVICES (ENTER NUMBER OF UNITS OF EQUIPMENT IN SPACES IN COLUMNS. COMPLETE A FORM R FOR EACH ENTRY.)

19. NO. OF UNITS	CONTROL DEVICE	20. NO. OF UNITS	CONTROL DEVICE	21. NO. OF UNITS	CONTROL DEVICE	22. NO. OF UNITS	CONTROL DEVICE
(a)	SPRAY CURTAIN	(a)	AIR WASHER	(a)	ABSORBER	(a)	DEMISTER
(b)	CYCLONE	(b)	WET COLLECTOR	(b)	ADSORBER	(b)	BAGHOUSE
(c)	MULTIPLE CYCLONE	(c)	VENTURI SCRUBBER	(c)	FILTER PADS	(c)	ELEC. PRECIPITATOR
(d)	INERTIAL COLL. – OTHER	(d)		(d)	AFTERBURNER	(d)	OTHER

23. BASIC EQUIPMENT COST (Estimate)	24. CONTROL EQUIPMENT COST (Estimate)	25. DAILY HOURS 24 Hours FROM _____ AM to _____ PM	26. DAYS OF OPERATION (Circle)
200,000			(S) M T W T F (S)

27. ESTIMATED STARTING DATE OF CONSTRUCTION:	28. ESTIMATED COMPLETION DATE OF CONSTRUCTION:
March 1995	June 1995

29. RAW MATERIALS (List starting material used in process) AND FUELS (Type and amount)	~~ANNUAL AMT.~~ lb/hr UNITS	30. PRODUCTS (List End Products)	~~ANNUAL PROD.~~ UNITS
(a) Whole tires as fuel to derive	6735	(a) approx. million BTU/hr.	84.18
(b) 30% BTU replacement per ton		(b)	
(c) of clinker		(c)	
(d)		(d)	
(e)		(e)	
(f)		(f)	
(g)		(g)	

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Notice of Construction Application | FORM P

STACKS OR VENTS (LIST NUMBER, TYPE, AND SIZE OF VENT)

31. NO. OF UNITS	DESCRIPTION OF OPENING	32. HEIGHT ABOVE GRADE (FT.)	33. VOLUME EXHAUSTED (ACFM)	DIMENSIONS (INCHES)	
				34. LENGTH (OR DIAM)	35. WIDTH
(a)	STACKS				
(b)	FLUES				
(c)	PROCESS OR GENERAL EXHAUST				
(d)	PROCESS OR GENERAL VENTS				
(e)	SKYLIGHT OR WINDOW				
(f)	EXHAUST HOOD				
(g)	OTHER				

FLOW DIAGRAM

36. FLOW DIAGRAM INSTRUCTIONS:

(a) FLOW DIAGRAM MAY BE SCHEMATIC. ALL EQUIPMENT SHOULD BE SHOWN WITH EXISTING EQUIPMENT SO INDICATED.
(b) SHOW FLOW DIAGRAM OF PROCESS STARTING WITH RAW MATERIALS USED AND ENDING WITH FINISHED PRODUCT.
(c) IF MORE THAN ONE PROCESS IS INVOLVED TO MAKE FINISHED PRODUCT, SHOW EACH PROCESS AND WHERE THEY MERGE.
(d) INDICATE ALL POINTS IN PROCESS WHERE GASEOUS OR PARTICULATE POLLUTANTS ARE EMITTED.
(e) FLOW CHART CAN BE ATTACHED SEPARATELY IF NECESSARY. (DRAWINGS MAYBE SUBMITTED INSTEAD IF DESIRED).
(f) SHOW PICKUP AND DISCHARGE POINTS FOR HANDLING OR CONVEYING EQUIPMENT.

SEE FULLER PROCESS FLOW DIAGRAM

37. LIST OF ATTACHMENTS AND ACCOMPANYING DATA OR COMMENTS:

Form R — Usage Estimates — Site Plan
Form S — Construction Design
Narrative — Process Flow Diagram

38. CERTIFICATION:

I, THE UNDERSIGNED, DO HEREBY CERTIFY THAT THE INFORMATION CONTAINED IN THIS APPLICATION AND THE ACCOMPANYING FORMS, PLANS, AND SUPPLEMENTAL DATA DESCRIBED HEREIN IS, TO THE BEST OF MY KNOWLEDGE, ACCURATE AND COMPLETE.

39. SIGNATURE	40. DATE
Gerald J Brown	11/29/94

41. TYPE OR PRINT NAME	42. TITLE	43. PHONE
Gerald J Brown	Mgr. Safety + Env.	623-5596

PUGET SOUND AIR POLLUTION CONTROL AGENCY
Engineering Division ▪ 110 Union Street, Suite 500 ▪ Seattle, Washington 98101-2038 ▪ (206) 689-4052

NOTICE of CONSTRUCTION & APPLICATION for APPROVAL

FOR BASIC PROCESS EQUIPMENT | **FORM S** | For Agency Use: Date: _____ N/C# _____

*Note: Information required by Section 1a must be completed for this form to be accepted for review.

1	a. Complete the Sections Indicated* [ ]1 [ ]2 [ ]3 [ ]4 [ ]5 [ ]6 [ ]7 [ ]8 [ ]9 [ ]10 [ ]11 [ ]12		b. Company (or owner) Installation Address: 3801 E. Marginal Way So., Seattle, WA 98134	
	c. Company (or owner) Name: Ash Grove Cement Company		d. Applicant	
	e. Prepared by (name and title): Gerald J. Brown, Safety & Enviro. Mgr.		f. Prepared by (signature): Gerald J. Brown	g. Phone: 623-5596
2	a. PROCESS EQUIPMENT	b. Title: Whole Tire Feed System	c. Make & Model: AGC-Seattle	d. Dimensions (LxWxH)
	e. # of Units; Rated Capacity: 1;6735 lb/hr	f. Tire Derived Fuel	g. Auxiliary Equipment	h. Connected to: Kiln
3	a.	b.	c.	d.
	e.	f.	g. Equipment	h. Connected to:
4	a. BURNERS	b. Type of Burner, Fuel: Tires to be used for fuel	c. Make & Model	d. Rated Capacity
	e. # of Units; Ignition Method: Cement Kiln(existing)	f. along with natural gas & coal	g. CFM Exhausted (Temperature) _____ (_____°F)	h. Connected to: Existing Kiln Baghouse
5	a. STACKS, VENTS, AND EXHAUST OPENINGS	b. Type of Vent	c. Dimensions	d.
	e. # of Vents; Material of Construction: 1; existing kiln stack	f.	g. CFM Exhausted (Temperature) _____ (_____°F)	h. Connected to: Existing Kiln Baghouse
6	a. TANKS AND KETTLES	b. Type of Tank, Material	c. Dimensions (LxWxH) in inches	d. Surface Area (sq. ft.) [ ] Closed [ ] Open
	e. # of Tanks; Material of Construction	f.	g. Auxiliary Equipment	h. Connected to:
7	a. FANS	b. Type of Fan (designate blade)	c. Make & Model	d. Motor Data _____ RPM _____ HP
	e. # of Fans; Material of Construction	f.	g. CFM Exhausted (Temperature) _____ (_____°F)	h. Connected to:
8	a. OVENS & FURNACES	b. Type of Oven or Furnace	c. Make & Model	d. Rated Capacity
	e. # of Ovens or Furnaces; Material of Construction	f.	g. CFM Exhausted (Temperature) _____ (_____°F)	h. Connected to:
9	a. OPERATIONAL DATA	b. Type of Operation [ ] Batch [X] Continuous	c. Operating Schedule (normal) Shifts/Day: [X] 1 [X] 2 [X] 3	d. Mode of Operations [ ] Manual [X] Auto [ ] Semi-Auto
	e. Duration of Batch (hrs/batch)	f.	g. Daily # of Batches _____ avg _____ max	h.
10	a. CONVEYORS	b. Type of Conveyor (pneumatic, belt): 1 ea Tire Elevator	c. Make & Model	d. Capacity: 6735 lb/hr
	e. Dimensions (LxWxH): 3	f. 2 ea Belt	g. # of Pickups: 1 ea; # of Discharge Points: 1 ea	h. Connected to: Tire Feed Chute
11	a. GAS FLOW	b. Actual CFM	c. SCFM (Reg I Standard)	d. Temperature (°F) In _____ Out _____
	e. Pressure Drop	f. Efficiency	g. Inlet and Outlet Pollutant Concentrations	h.
12	a. ADDITIONAL DATA	b. [ ] Attach Brochure	c. [X] Attach Plans/Specs	d. [ ] Attach Emission Estimate (show calculation)
	e. [X] Submit Narrative Description of Process	f. [ ] Submit Source Test Data	g. [ ] Submit Modeling Data	h. [ ] Attach Schedule of Equipment with Make, Model, Capacity
	i. [ ] Const. Design	j. [ ] Usage Estimates	k. [ ]	l. [ ]

Form 50-125S (6/92)

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PUGET SOUND AIR POLLUTION CONTROL AGENCY

Engineering Division ▪ 110 Union Street, Room 500 ▪ Seattle, Washington 98101-2038 ▪ (206) 689-4052

NOTICE of CONSTRUCTION & APPLICATION for APPROVAL

FOR AIR POLLUTION CONTROL EQUIPMENT ONLY

FORM R

For Agency Use: Date: _____ N/C# _____

*Note: Information required by Section 1a must be completed for this form to be accepted for review.

1	a. Complete the Sections Indicated* [ ]1 [ ]2 [ ]3 [ ]4 [ ]5 [ ]6 [ ]7 [ ]8 [ ]9 [ ]10 [ ]11 [ ]12		b. Company (or owner) Installation Address: 3801 E. Marginal Way So., Seattle, WA 98134	
	c. Company (or owner) Name: Ash Grove Cement Company		d. Applicant	
	e. Prepared by (name and title): Gerald J. Brown, Safety & Enviro. Mgr.		f. Prepared by (signature): Gerald J. Brown	g. Phone: 623-5596
2	a. AIR POLLUTION CONTROL EQUIPMENT	b. Type of Equipment	c. Make & Model	d. Dimensions (LxWxH)
	e. Number of Units	f. Capacity	g. Auxiliary Equipment	h. Connected to: Kiln
3	a. BAGHOUSE	b. Number of Bags	c. Shaking Cycle (auto or manual rapping or reverse air)	d. Cloth Area
	e. Material Used: Existing kiln baghouse	f.	g. Air-to-Cloth Ratio (ft/minute)	h. Connected to:
4	a. ELECTROSTATIC PRECIP.	b. Electrode Separation (ft)	c. Coll. Electrode Dimensions LxW (ft)	d. Mean Velocity of Gas (ft/sec)
	e. Area (sq ft)	f. Voltage	g. Coll. Electrode or Plate Area (sq ft)	h. Connected to:
5	a. BURNERS	b. Type of Burner, Fuel	c. Make & Model	d. Rating
	e. Number of Units; Ignition	f.	g. CFM Exhausted (Temperature) _____ (_____°F)	h. Connected to:
6	a. STACKS, VENTS	b. Type of Vent	c. Dimensions (LxWxH)	d. Dampers
	e. No. of Vents; Material Used: Existing main stack	f.	g. CFM Exhausted (Temperature) _____ (_____°F)	h. Connected to:
7	a. SCRUBBERS	b. Type of Flow (spray, bubbler)	c. Packing Type/Size	d. Pressure Drop (inches of water)
	e. Composition of Solution	f.	g. Flow Rate (GPM)	h. Make-Up (GPM)
8	a. FANS	b. Type of Fan (designate blade)	c. Make & Model	d. Motor Data _____ RPM _____ HP
	e. Number of Fans; Material Used	f.	g. CFM Exhausted (Temp @ SP) _____ (_____°F)	h. Connected to:
9	a. CYCLONES	b. Type of Cyclone [ ] Common [ ] Split Duct [ ] Multiclone	c. Make & Model	d. Inlet Area (sq ft)
	e. Number of Units; Material Used	f. Body Dia. (in.) / Outlet Dia. (in.)	g. Body Height (in.) / Efficiency	h. Connected to:
10	a. COLLECTION DATA	b. Description of Collected Matl.	c. Amount Collected (lbs/day)	d. Particle Size (microns avg.)
	e. Types of Pollutants [ ] Gas [ ] Particulate [ ] Odor	f. No new or increase in emissions expected	g. Collection Efficiency	h. Disposition of Collection Waste
11	a. GAS FLOW	b. Actual CFM. No increase in current flows	c. SCFM (Reg I Standard)	d. Temperature (°F) In _____ Out _____
	e. Pressure Drop	f. Efficiency	g. Inlet and Outlet Pollutant Concentrations	h.
12	a. ADDITIONAL DATA	b. [ ] Attach Brochure	c. [X] Attach Plans/Specs	d. [ ] Attach Emission Estimate (show calculation)
	e. [X] Submit Narrative Description of Process	f. [ ] Submit Source Test Data	g. [ ] Submit Modeling Data	h. [ ] Attach Schedule of Equipment with Make, Model, Capacity
	i. [ ]	j. [ ]	k. [ ]	l. [ ]

Form 50-125R (6/92)

PUGET SOUND AIR POLLUTION CONTROL AGENCY
110 Union Street, Suite 500
Seattle, Washington 98101

ENVIRONMENTAL CHECKLIST

WAIT - You may not need to fill out the attached checklist.
Please read and check the following:

Because of the State Environmental Policy Act, the action for which you are filing a Notice of Construction and Application for Approval to this Agency requires the completion of an environmental checklist.

BUT: If you can answer "yes" to either of the following questions with respect to the action being proposed, the attached checklist need not be completed:

1. I have obtained a State, City or County Permit and filled out an environmental checklist.

   [ ] Yes [X] No

   If you answered "yes", give State, City or County Department and date, and attach a copy of the checklist.

2. An environmental checklist or assessment has previously been filled out for another agency.

   [ ] Yes [X] No

   If "yes", give agency and date, and attach a copy of the checklist.

If your answer to both of the above questions was "no", you must fill out the attached environmental checklist.

Prepared by:

(Signature)

Gerald J. Brown
(Print Name)

Safety & Environmental Manager
(Title)

Form No. 66-150 5/29/92

Puget Sound Air Pollution Control Agency

110 Union Street, Suite 500
Seattle, Washington 98101
Telephone: (206) 343-8800
1-800-552-3635

Date: 11-29-94

Proponent: Ash Grove Cement Company

Project, Brief Title: Whole Tire Feed System - Tire Derived Fuel

ENVIRONMENTAL CHECKLIST

Purpose of Checklist:

The State Environmental Policy Act (SEPA), Chapter 43.21C RCW, requires all governmental agencies to consider the environmental impacts of a proposal before making decisions. An environmental impact statement (EIS) must be prepared for all proposals with probable significant adverse impacts on the quality of the environment. The purpose of this checklist is to provide information to help you and the agency identify impacts from your proposal (and to reduce or avoid impacts from the proposal, if it can be done) and to help the agency decide whether an EIS is required.

Instructions for Applicants:

This environmental checklist asks you to describe some basic information about your proposal. Governmental agencies use this checklist to determine whether the environmental impacts of your proposal are significant, requiring preparation of an EIS. Answer the questions briefly, with the most precise information known, or give the best description you can.

You must answer each question accurately and carefully, to the best of your knowledge. In most cases, you should be able to answer the questions from your own observations or project plans without the need to hire experts. If you really do not know the answer, or if a question does not apply to your proposal, write "do not know" or "does not apply". Complete answers to the questions now may avoid unnecessary delays later.

Some questions ask about governmental regulations, such as zoning, shoreline, and landmark designations. Answer these questions if you can. If you have problems, the governmental agencies can assist you.

The checklist questions apply to all parts of your proposal, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The agency may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impact.

Use of checklist for nonproject proposals:

Complete this checklist for nonproject proposals, even though questions may be answered "does not apply." IN ADDITION, complete the SUPPLEMENTAL SHEET FOR NONPROJECT ACTIONS (part D).

For nonproject actions, the references in the checklist to the words "project," "applicant," and "property or site" should be read as "proposal," "proposer," and "affected geographic areas," respectively.

TO BE COMPLETED BY THE APPLICANT

A. BACKGROUND

1. Name of proposed project, if applicable:

   Whole Tire Feed System

   Tire Derived Fuel

2. Name of applicant: Ash Grove Cement Company

3. Address and phone number of applicant and contact person:

   Name: Gerald J. Brown Title: Safety & Enviro. Mgr.

   Firm: Ash Grove Cement Company Telephone: (206) 623-5596

   PO Box/Street: 3801 E. Marginal Way So.

   City/State/Zip: Seattle, WA 98134

4. Date checklist prepared: 11/29/94

5. Agency requesting checklist: PSAPCA

6. Proposed timing or schedule (including phasing, if applicable):

7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.

   NO.

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.

The environmental checklist prepared in December 1988 for construction of the plant is directly related to this proposal.

9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.

None

10. List any government approvals or permits that will be needed for your proposal, if known.

None

11. Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page.

This project uses discarded vehicle tires as fuel for heating the existing kiln and the construction of a tire feed system. Tires will be injected into the kiln at the calciner level of the pre-heater through double air lock doors. The double air lock doors will prevent emission from the kiln system. The existing kiln, baghouse and continuous emission monitors will be used with this project.

12. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist.

The location is at the Ash Grove Cement Plant located at 3801 E. Marginal Way So., Seattle, WA 98134.

B. ENVIRONMENTAL ELEMENTS

1. Earth

a. General description of the site (circle one): (Flat), rolling, hilly, steep slopes, mountainous, other: _____.

b. What is the steepest slope on the site (approximate percent slope)?

2 percent

c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any prime farmland.

Hydraulic dredge fill overlying alluvial sands and silts with glacially consolidated sandy silt at considerable depths, about 200 feet below the existing ground surface elevation.

d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.

No

e. Describe the purpose, type, and approximate quantities of any filling or grading proposed. Indicate source of fill.

None

f. Could erosion occur as a result of clearing, construction or use? If so, generally describe.

No

g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?

h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:

None

2. Air

a. What types of emissions to the air would result from the proposal (i.e., dust, automobile, odors, industrial, wood smoke) during construction and when the project is completed? If any, generally describe and give approximate quantities if known.

No increase in emissions or new pollutants expected.

b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.

No

c. Proposed measures to reduce or control emissions or other impacts to air, if any:

The process is vented by fabric filter dust collectors.

3. Water

a. Surface:

1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into.

The Duwamish River flows along the west border of the plant site.

2) Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans.

No

3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.

None

4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known.

No

5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.

No

6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.

No

b. Ground:

1) Will ground water be withdrawn, or will water be discharged to ground water? Give general description, purpose and approximate quantities if known.

No

2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: domestic sewage; industrial, containing the following chemicals...; agricultural; etc.). Describe the general size of the systems, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.

None

c. Water Runoff (including storm water):

1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.

Storm water runoff will continue to be collected in the existing plant storm water system.

2) Could waste material enter ground or surface waters? If so, generally describe.

No

d. Proposed measures to reduce or control surface, ground, and runoff water impacts, if any:

None

4. Plants

a. Check or circle types of vegetation found on the site:

_X_ deciduous tree: alder, maple, aspen, other
_X_ evergreen tree: fir, cedar, pine, other
_X_ shrubs
_X_ grass
___ pasture
___ crop or grain
___ wet soil plants: cattail, buttercup, bullrush, skunk cabbage, other
___ water plants: water lily, eelgrass, milfoil, other
___ other types of vegetation

b. What kind and amount of vegetation will be removed or altered?

None

c. List threatened or endangered species known to be on or near the site.

None

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:

None

5. Animals

a. Circle any birds and animals which have been observed on or near the site or are known to be on or near the site:
None
Birds: hawk, heron, eagle, songbirds, other:

Mammals: deer, bear, elk, beaver, other:

Fish: bass, salmon, trout, herring, shellfish, other:

b. List any threatened or endangered species known to be on or near the site.

None

c. Is the site part of a migration route? If so, explain.

No

d. Proposed measures to preserve or enhance wildlife, if any:

None

6. Energy and Natural Resources

a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.

Tires will be used as fuel to heat the kiln and reduce demands on other fuels.

b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.

No

c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:

None

7. Environmental Health

a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so, describe.

None

1) Describe special emergency services that might be required.

None

2) Proposed measures to reduce or control environmental health hazards, if any:

Existing kiln baghouse and continuous emission monitors will be used along with this project.

b. Noise

1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?

Various pieces of heavy machinery are located at the plant site.

2) What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site.

None

3) Proposed measures to reduce or control noise impacts, if any:

N/A

8. Land and Shoreline use

a. What is the current use of the site and adjacent properties?

Heavy manufacturing.

b. Has the site been used for agriculture? If so, describe.

No

c. Describe any structures on the site.

At the site are a 14 foot diameter cement kiln, 260 foot tall preheater tower, raw material silos, clinker storage silos and shed, cement storage silos, raw mill building, finish mill building, packhouse building, motor control centers, plant office and sales office.

d. Will any structures be demolished? If so, what?

No

e. What is the current zoning classification of the site?

General Industrial 1 (IG 1)

f. What is the current comprehensive plan designation of the site?

Industrial

g. If applicable, what is the current shoreline master program designation of the site?

Urban Industrial (UI)

h. Has any part of the site been classified as an "environmentally sensitive" area? If so, specify.

No

i. Approximately how many people would reside or work in the completed project?

None

j. Approximately how many people would the completed project displace?

None

k. Proposed measures to avoid or reduce displacement impacts, if any:

N/A

l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:

N/A

9. Housing

a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.

N/A

b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.

N/A

c. Proposed measures to reduce or control housing impacts, if any:

N/A

10. Aesthetics

a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?

75'

b. What views in the immediate vicinity would be altered or obstructed?

None

c. Proposed measures to reduce or control aesthetic impacts, if any:

N/A

11. Light and Glare

a. What type of light or glare will the proposal produce? What time of day would it mainly occur?

None

b. Could light or glare from the finished project be a safety hazard or interfere with views?

No

c. What existing off-site sources of light or glare may affect your proposal?

None

d. Proposed measures to reduce or control light and glare impacts, if any:

None

12. Recreation

a. What designated and informal recreational opportunities are in the immediate vicinity?

None

b. Would the proposed project displace any existing recreational uses? If so, describe.

No

c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:

N/A

13. Historic and Cultural Preservation

a. Are there any places or objects listed on, or proposed for, national, state, or local preservation registers known to be on or next to the site? If so, generally describe.

No

b. Generally describe any landmarks or evidence of historic, archaeological, scientific, or cultural importance known to be on or next to the site.

Does Not Apply

c. Proposed measures to reduce or control impacts, if any:

Does Not Apply

14. Transportation

a. Identify public streets and highways serving the site, and describe proposed access to the existing street system. Show on site plans, if any.

East Marginal Way serves the site. Access is by way of an existing driveway entrance at the northeast corner of the property.

b. Is site currently served by public transit? If not, what is the approximate distance to the nearest transit stop?

No. The closest transit stop is 1000 feet away.

c. How many parking spaces would the completed project have? How many would the project eliminate?

Will not change from current levels.

d. Will the proposal require any new roads or streets, or improvements to existing roads or streets, not including driveways? If so, generally describe (indicate whether public or private).

No

e. Will the project use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.

No

f. How many vehicular trips per day would be generated by the completed project? If known, indicate when peak volumes would occur.

g. Proposed measures to reduce or control transportation impacts, if any:

None

15. Public Services

a. Would the project result in an increased need for public services (for example, fire protection, police protection, health care, schools, other)? If so, generally describe.

No

b. Proposed measures to reduce or control direct impacts on public services, if any.

N/A

16. Utilities

a. Circle utilities currently available at the site: electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other.

N/A

b. Describe the utilities that are proposed for the project, the utility providing the service, and service, and the general construction activities on the site or in the immediate vicinity which might be needed.

None

C. SIGNATURE

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Signature: _____

Date Submitted: 11/29/94

D. SUPPLEMENTAL SHEET FOR NONPROJECT ACTIONS

(Do not use this sheet for project actions)

Because these questions are very general, it may be helpful to read them in conjunction with the list of the elements of the environment.

When answering these questions, be aware of the extent the proposal, or the types of activities likely to result from the proposal, would affect the item at a greater intensity or at a faster rate than if the proposal were not implemented. Respond briefly and in general terms.

1. How would the proposal be likely to increase discharge to water; emissions to air; production, storage, or release of toxic or hazardous substance; or production of noise?

   No increases are expected.

   Proposed measures to avoid or reduce such increase are:

2. How would the proposal be likely to affect plants, animals, fish, or marine life?

   The proposal will have no impact.

   Proposed measures to protect or conserve plants, animals, fish, or marine life are:

   N/A

3. How would the proposal be likely to deplete energy or natural resources?

   The proposal will not increase energy consumption of the plant.

   Proposed measures to protect or conserve energy and natural resources are:

   This proposal will reduce consumption of fossil fuels.

4. How would the proposal be likely to use or affect environmentally sensitive areas or areas designated (or eligible or under study) for governmental protection; such as parks, wilderness, wild and scenic rivers, threatened or endangered species habitat, historic or cultural sites, wetlands, floodplains, or prime farmlands?

Does Not Apply

Proposed measures to protect such resources or to avoid or reduce impacts are:

Does Not Apply

5. How would the proposal be likely to affect land and shoreline use, including whether it would allow or encourage land or shoreline uses incompatible with existing plans?

Does Not Apply

Proposed measures to avoid or reduce shoreline and land use impacts are:

Does Not Apply

6. How would the proposal be likely to increase demands on transportation or public services and utilities?

It will not increase demand in transportation services or power consumption. Transportation of tires should be offset by an equal or greater number of coal deliveries.

Proposed measures to reduce or respond to such demand(s) are:

7. Identify, if possible, whether the proposal may conflict with local, state, or federal laws or requirements for the protection of the environment.

Does Not Apply

Ash Grove Cement Company
3801 E. Marginal Way So.
Seattle, Washington

Whole Tire Feed System
Tire Derived Fuel
NARRATIVE

This project uses discarded automobile and medium truck tires as a fuel for heating the kiln. Tire incineration will supply no more than 30% of the plant's fuel requirements for manufacturing cement. A newly erected automatic feed system will convey whole tires singularly from the ground level staging area via an elevator to the calciner level of the preheater tower located just above the kiln. Tires are injected into the calciner through a feed chute fitted with double airlock doors. The airlock prevents emission releases by sealing the outer doors before the inner doors open to deliver the tire into the kiln. In contrast, inner doors shut prior to the opening outer doors to accept the next tire.
This project utilizes the kiln and its associated emission control and continuous emission monitoring equipment currently used in the plant process.

Ash Grove Cement Company
3801 E. Marginal Way So.
Seattle, Washington, 98134

Whole Tire Feed System
Tire Derived Fuel
USAGE ESTIMATE

Plant Capacity.....	92 TPH
Thousand BTU/lb produced....	3050 MBTU/ton
Tires Thousand BTU/lb.....	12.5 MBTU/lb
Percent of design capacity..	30%

(92 tons/hr x 3050 MBTU/ton) x 30% / 12.5 MBTU/lb = 6735 lb/hr

2

24'-10"

3

℄ 4"ø PULLEY

11"

2 3/4"

DETAIL A

TIRE SENSOR

TIRE SCALE (TS-1)

KILN FEED CONV. CV-3. BELT LINE

2'-2 1/4"

2'-1 5/8"

E/CONV. STRINGER

℄ KILN

TIRE FEED CHUTE W/DOUBLE AIRLOCKS AND TIRE STOP

(AC-2)

(AC-3)

TIRE FEED CHUTE W/DOUBLE AIRLOCKS AND TIRE STOP

ELEVATOR DRIVE SERVICE PLATFORM

GUIDE RAILS

TIRE ELEVATOR (EL-1) BY CUSTOMER. DESIGN

ELEVATOR CAGE

6.30055"

℄

HOOK SENSOR

TIRE FEED CONVEYOR

℄ 48" FLAT BELT CONV. (CV-2)

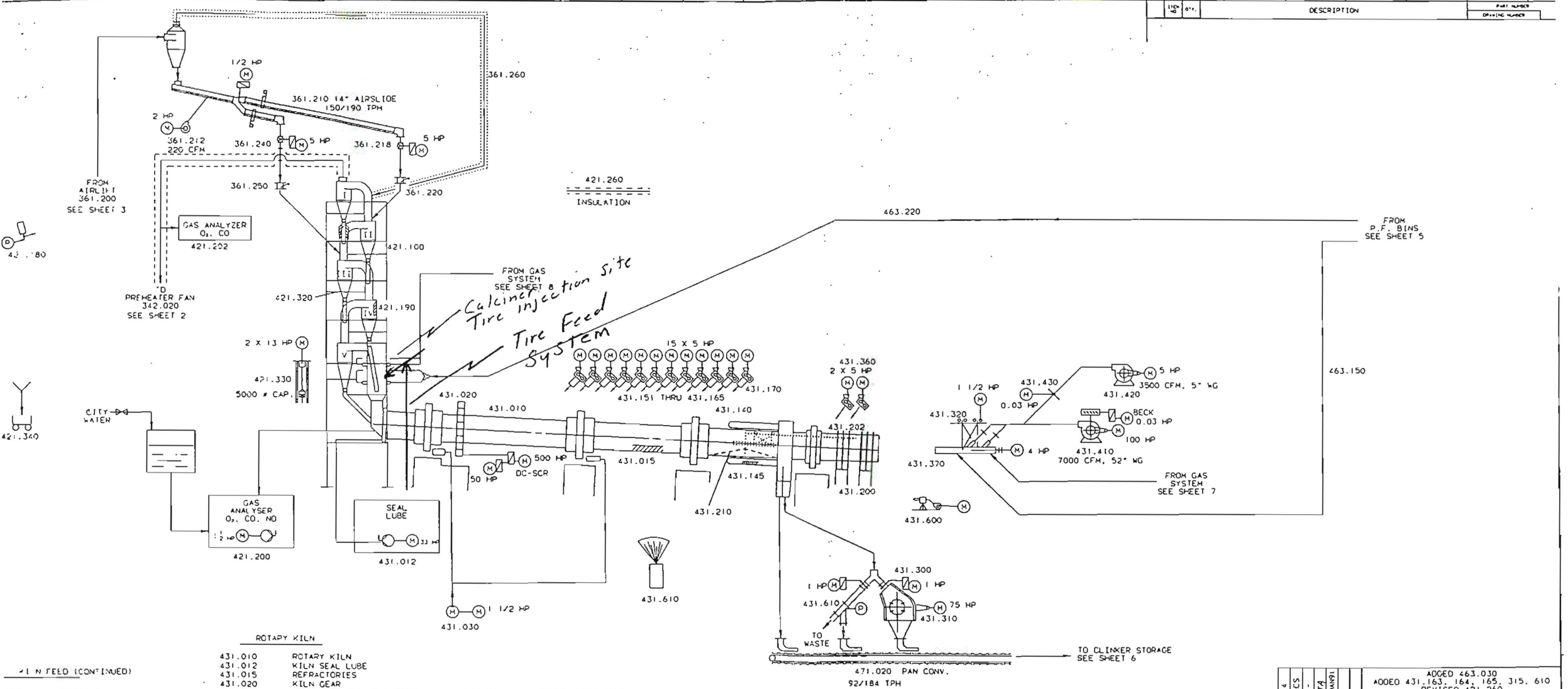
℄ KILN

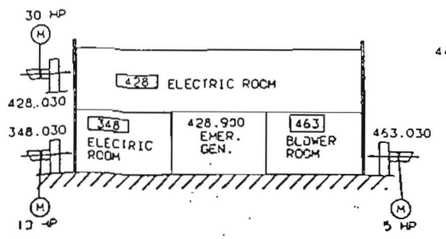
MAIN FLOOR

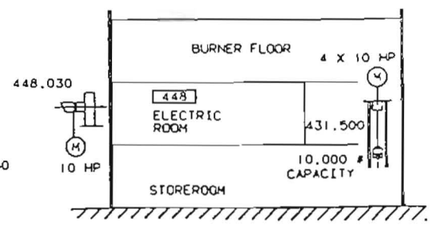
SEA0942

AGCS2M002539

LTR	DATE	DESCRIPTION	PART NUMBER
			DRAWING NUMBER







KILN FEED (CONTINUED)

.210	AIRSLIDE
.212	AIRSLIDE FAN
.218	ROTARY FEEDER
.220	FLAP VALVE
.240	ROTARY FEEDER
.250	FLAP VALVE
.260	VENT DUCTING

CYCLONE PREHEATER

.100	5 STAGE PREHEATER ILC-E
.180	SHOCK BLASTER (3)
.190	REFRACTORIES
.200	GAS ANALYZER (KILN)
.202	GAS ANALYZER (PREHEATER)
.260	INSULATION
.320	ACCESS PLATFORMS
.330	PASSENGER/FREIGHT ELEVATOR
.340	SCRAP CHUTE AND CONTAINER

ROTARY KILN

431.010	ROTARY KILN
431.012	KILN SEAL LUBE
431.015	REFRACTORIES
431.020	KILN GEAR
431.030	HYDRAULIC THRUST SYSTEM
431.140	COOLER-UNAX
431.145	REFRACTORIES
431.151	SHELL COOLING FAN #1
431.152	SHELL COOLING FAN #2
431.153	SHELL COOLING FAN #3
431.154	SHELL COOLING FAN #4
431.155	SHELL COOLING FAN #5
431.156	SHELL COOLING FAN #6
431.157	SHELL COOLING FAN #7
431.158	SHELL COOLING FAN #8
431.159	SHELL COOLING FAN #9
431.160	SHELL COOLING FAN #10
431.161	SHELL COOLING FAN #11
431.162	SHELL COOLING FAN #12
431.163	SHELL COOLING FAN #13
431.164	SHELL COOLING FAN #14
431.165	SHELL COOLING FAN #15
431.170	SHELL FAN DUCTING (15)
431.200	PIPE GIRDER
431.202	INSULATION (PIPE GIRDER)
431.210	PORTABLE KILN ACCESS RAMP
431.300	CUT-OFF GATE (2)
431.310	HAMMER CRUSHER
431.315	DIVERTER GATE
431.320	BURNER TROLLEY
431.360	COOLING FAN (2) (PIPE GIRDER)
431.370	KILN BURNER
431.410	PRIMARY AIR FAN
431.420	EMERGENCY AIR FAN
431.430	THROTTLE VALVE
431.500	PASSENGER/FREIGHT ELEVATOR
431.600	TV SYSTEMS
431.610	KILN CEMSCANNER

348.030	VENTILATION UNIT
428.030	VENTILATION UNIT
448.030	VENTILATION UNIT
463.030	VENTILATION UNIT

REV. NO.	DR.	CHD.	APPR.	DATE	ZONE	MICRO	
4	ACS	-					ADDED 463.030 ADDED 431.163, 164, 165, 315, 610 REVISED 421.260
3	PAH	1	EJA	6/24			
				31OCT90			ADDED 431.210
2	ACS	1	EJA	23JAN91			
				14SEP90			ADDED 431.165, ELECTRIC ROOMS CHANGED 361.220 TO FLAP VALVE
1	PAH	1	EJA	06JUL90			DELETED 421.398 GENERAL UPDATE

FULLER
A member of the F.L. Smidth Group
FULLER COMPANY P.O. Box 2040 Bethlehem, Pennsylvania 18001 USA

DR. ACS	EQUIPMENT FLOW SHEET
CHD. -	PYROPROCESSING AREA
APPR. EJA	AREAS 421/431
DATE 26APR90	ASH GROVE CEMENT WEST, INC., SEATTLE PLANT
SCALE NONE	DRAWING NUMBER 353-121-14 2472 REV. 4
WEIGHT	

SEA0943
1

AGCS2M002540

N

DUWAMISH WATERWAY

PORT OF SEATTLE
TERMINAL #102

PROPERTY LINE

PROPERTY LINE

RAIL

RAIL

RAIL

TT #1

TT #2

TT #3

TT #4

TT #5

TT #6

TT #7

TT #8

BARGE

141	LIMESTONE RECEIVING
151	LIMESTONE STORAGE
152	ADDITIVE RECEIVING
153	CLAY STORAGE
155	IRON ORE/SILICA TRANSPORT
158	ELECTRIC ROOM
161	LIMESTONE TRANSPORT
163	LIMESTONE/CLAY TRANSPORT
212	RAW COAL RECEIVING
331	RAW MATERIAL FEED BINS & RAW MILL FEED
341	RAW MILL DEPARTMENT
342	RAW MILL, KILN DEDUSTING EQUIPMENT
348	ELECTRIC ROOM
351	RAW MEAL TRANSPORT
361	RAW MEAL STORAGE & KILN FEED
421	CYCLONE PREHEATER
428	ELECTRIC ROOM (PREHEATER)
431	KILN DEPARTMENT & BURNER PLATFORM
448	ELECTRIC ROOM (BURNER)
461	RAW COAL STORAGE & FEED
462	COAL MILLS, DEDUSTING, & TRANSPORT
463	COAL FIRING EQUIPMENT
471	CLINKER TRANSPORT TO SILOS
472	CLINKER TRANSPORT TO STORAGE SHED
473	CLINKER STORAGE SHED
480	CLINKER SILOS
651	FINISH MILLS DEPARTMENT
682	CYCLONAIRE TRANSFER SYSTEM
721	MAIN SUBSTATION
731	CENTRAL CONTROL ROOM & OFFICE BLDG.
761	WATER HANDLING -- COOLING TOWER
781	LOADING HOIST & MOORING EQUIPMENT
800	BARGE UNLOADING
811	WAREHOUSE/MAINTENANCE SHOP BLDG.
910	GROUP II SILOS
920	GROUP I SILOS
940	PACKHOUSE
951	STEEL SCALE TANKS

PORT OF SEATTLE
TERMINAL #106 WEST

SEA0944

ASH GROVE CEMENT CO.

SEATTLE PLANT
SITE PLAN

DRN.	JL
CK'D	
DATE	09/27/96
SCALE	N.T.S.
CAD FILE NAME	
DRAWING NUMBER	001.000-0002
REV.	
SHEET	

REV.	
DATE	
APP'VD BY	

B-SIZE DWG. OF SITEPLAN

AGCS2M002541